

## **Space-based Gravitational-wave Mission Concept Studies**

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Talk or Poster

The LISA Mission Concept has been under study for over two decades as a space-based gravitational-wave detector capable of observing astrophysical sources in the 0.0001 to 1 Hz band. The concept has consistently received strong recommendations from various review panels based on the expected science, most recently from the US Astro2010 Decadal Review. Budget constraints have led both the US and European Space agencies to search for lower cost options. We report results from the US effort to explore the tradeoffs between mission cost and science return, and in particular a family of mission concepts referred to as SGO (Space-based Gravitational-wave Observatory).